Job Risk Analysis

Name(s) of Risk Team Members: P. Cirnigliaro, D. Passarello, R. Costa, A. Farland, T. Lambertson	Point Value → Parameter ↓	1	2	3	4	5
Job Title: Replacing/welding pipe in a building 1005R Job Number or Job Identifier: JRA 21b	Frequency (B)	≤once/year	≤once/month	≤once/week	≤once/shift	>once/shift
Job Description: Welding indoors on a platform Building 1005R	Severity (C)	First Aid Only	Medical Treatment	Lost Time	Partial Disability	Death or Permanent Disability
Training and Procedures List (optional): Approved by: *E. Lessard* Date: 8-18-04 Rev. #: 1	Likelihood (D)	Impossible	Unlikely	Possible	Probable	Multiple

Stressors (if applicable, please list all):	Reason for Revision (if applicable): Welder asked for changes in order to add controls that were not captured during the initial risk assessment in the field	Comments:

				Before Additional Controls							After Additional Controls						
Job Step / Task	Hazard	Control(s)	**Stressors Y/N**	**# of People A**	**Frequency B**	**Severity C**	**Likelihood D**	**Risk* AxBxCxD**	Control(s) Added to Reduce Risk	**Stressors Y/N**	**# of People A**	**Frequency B**	**Severity C**	**Likelihood D**	**Risk* AxBxCxD**	% Risk Reduction
Apply LOTO to appropriate pipe system	Being struck by an object due to exposure to pressurized fluids/gases	Procedures, training, permits	N	2	1	3	2	12								
Review work area for potential fire hazards	Falls on same level	Proper footwear, housekeeping	N	2	1	3	2	12								
Use platform/scaffold	Falls to lower level	Fall protection	N	2	1	4	4	32	This hazard had been called to management's attention by the welders three days ago at a welding job near B1005. After that review, management added the following controls when welding at heights: Perform an engineering analysis of structural components to determine if fall protection arrest systems can be used. Install scaffolding where necessary and practicable. Reinforce training and procedures associated with the use of ladders on platforms. These controls shall be introduced on a job-by-job basis and be reinforced at the working level via an annual review of this JRA with welders and C-AD supervisors.	N	2	1	4	2	16	50%

Use platform/scaffold	Struck by object dropped from above	Toe boards, Hard hats	N	2	1	4	2	16									
Use platform/scaffold	Bodily reaction – injuries resulting from bending, loss of balance, slipping without falling, over exertion, lifting, pushing, carrying, and working in a tight area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team to distribute weight of pipe	N	2	1	4	2	16									
Bring equipment onto platform e.g. drill, sawz-all, etc.	Bodily reaction – injuries resulting from bending, loss of balance, slipping without falling, over exertion, lifting, pushing, carrying, and working in a tight area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team to distribute weight of pipe	N	2	1	3	2	12									
Cut pipe mechanically	Bodily reaction – injuries resulting from bending, loss of balance, slipping without falling, over exertion, lifting, pushing, carrying, and working in a tight area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team to distribute weight of pipe	N	2	1	3	2	12									
Cut pipe mechanically	Being struck by an object such as flying debris	Hardhat, safety glasses	N	2	1	4	2	16									
Cut pipe by torch	Welding hazards; e.g., heat, UV-IR exposure, noise, electrical, fumes	Training, use of appropriate PPE, use of ventilation controls, compressed gas, purge gas	N	2	1	4	2	16									
Cut pipe by torch	Bodily reaction – injuries resulting from bending, loss of balance, slipping without falling, over exertion, lifting, pushing, carrying, and working in a tight area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team to distribute weight of pipe	N	2	1	3	2	48									
Lower Pipe to floor	Bodily reaction – injuries resulting from bending, loss of balance, slipping without falling, over exertion, lifting, pushing, carrying, and working in a tight area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team to distribute weight of pipe	N	2	1	3	2	48									

Remove pipe from area	Bodily reaction – injuries resulting from bending, loss of balance, slipping without falling, over exertion, lifting, pushing, carrying, and working in a tight area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team to distribute weight of pipe	N	2	1	3	2	12									
Remove pipe from area	Falls from same level	Proper footwear, housekeeping	N	2	1	3	2	12									
Prep pipe by cleaning ends mechanically (grinding)	Being struck by an object such as flying debris	Safety glasses, gloves, machine guarding, hearing protection	N	2	1	4	2	16									
Prep pipe by cleaning ends mechanically (grinding)	Being struck against object that results in cuts, scrapes	Gloves, safety glasses, machine guarding, hearing protection	N	2	1	2	2	8									
Prep pipe by cleaning ends chemically (solvents)	Being struck against object that results in cuts, scrapes	Gloves, safety glasses	N	2	1	2	2	8									
Prep pipe by cleaning ends chemically (solvents)	Chemical exposure	Gloves, safety glasses	N	2	1	2	2	16									
Prep replacement pipe on floor. Welding as applicable	Bodily reaction – injuries resulting from bending, loss of balance, slipping without falling, over exertion, lifting, pushing, carrying, and working in a tight area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team to distribute weight of pipe	N	2	1	3	2	12									
Pre-fab replacement pipe on floor. Welding as applicable	Welding hazards, heat, UV-IR exposure, noise, electrical, fumes	Training, use of appropriate PPE, use of ventilation controls, permits	N	2	1	4	2	16									
Pre-fab replacement pipe on floor, grinding as applicable	Being struck by an object such as flying debris	Gloves, safety glasses, machine guarding, hearing protection	N	2	1	4	2	16									
Pre-fab replacement pipe on floor, grinding as applicable	Being struck against object that results in cuts, scrapes	Gloves, safety glasses, machine guarding, hearing protection	N	2	1	2	2	8									

Prep replacement pipe on floor for installation. Lifting and positioning	Bodily reaction – injuries resulting from bending, loss of balance, slipping without falling, over exertion, lifting, pushing, carrying, and working in a tight area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team to distribute weight of pipe	N	2	1	3	2	12									
Install replacement pipe using rigging, and lifting	Bodily reaction – injuries resulting from bending, loss of balance, slipping without falling, over exertion, lifting, pushing, carrying, and working in a tight area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team to distribute weight of pipe	N	2	1	3	2	12									
Install replacement pipe using rigging, and lifting.	Struck by object dropped from above	Hardhats	N	2	1	4	2	16									
Install replacement pipe using rigging, and lifting.	Bodily reaction - loss of balance, bending, climbing, tight working area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team to distribute weight of pipe	N	2	1	3	2	12									
Position replacement pipe by lifting, pushing, and pulling.	Bodily reaction- loss of balance, bending, climbing, tight working area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team to distribute weight of pipe	N	2	1	3	2	12									
Position replacement pipe by lifting, pushing, and pulling.	Bodily reaction- loss of balance, bending, climbing, tight working area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team to distribute weight of pipe	N	2	1	3	2	12									
Position replacement pipe by lifting, pushing, and pulling	Struck by object dropped from above	Hardhats	N	2	1	4	2	16									
Clamp pipe into position and tack weld and finish weld.	Bodily reaction- loss of balance, bending, climbing, tight working area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, ventilation, HEPA filter, and working as a team to distribute weight of pipe	N	2	1	3	2	12									
Clamp pipe into position and tack weld and finish welding	Bodily reaction- loss of balance, bending, climbing, tight working area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team to distribute weight of pipe	N	2	1	3	2	12									
Clamp pipe into position and tack weld and finish welding	Welding hazards, heat, UV-IR exposure, noise, electrical, fumes	Training, use of appropriate PPE, use of ventilation controls, compressed gas, purge gas, permits	Y	2	1	4	2	16									

Clean up work area, e.g. tools, rigging	Bodily reaction- loss of balance, bending, climbing, tight working area	Preparing the work area, examining the walking and working surfaces, using proper lifting equipment, proper footwear, and working as a team	N	2	1	3	2	12									
Clean up work area, e.g. tools, rigging etc.	Falls on same level	Proper footwear, housekeeping	N	2	1	3	2	12									
Clean up work area e.g. tools, rigging etc.	Struck by dropped objects	Proper footwear, housekeeping, hardhats	N	2	1	4	2	16									
Further Description of Controls Added to Reduce Risk:																	

*Risk:	0 to 20	21 to 40	41-60	61 to 80	81 or greater
	Negligible	Acceptable	Moderate	Substantial	Intolerable